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Remarks

Claims 13, 14 and 16-20 are pending in the above-identified application. Claims 13 and 17 are amended, claim 16 was previously amended, claim 20 is cancelled, claims 14 is original, and claims 18-19 were previously added.

The Examiner objected to claim 20. With this amendment Applicant has cancelled claim 20 and therefore a discussion of this objection is deemed moot.

The Examiner rejected the present claims under 35 U.S.C. 103(a).

MPEP §706.02(j) states: "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

MPEP §2143.01 provides the following. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Obviousness cannot be established by combining the teachings of the prior art to produce

the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933

(Fed. Cir. 1984).

The CCPA expressly held that there must be some logical reason apparent from the

evidence of record that would justify a combination or modification of references. In re Regel,

188 USPQ 132 (CCPA 1975). In determining whether one of ordinary skill in the art would find

it obvious to modify or combine references, the teachings of the references, taken with the

knowledge that a worker in the art already possesses, constitute the scope and content of the prior

art. Thus, the question raised under §103 is whether the prior art taken as a whole would suggest

the claimed invention taken as a whole to one of ordinary skill in the art. Accordingly, even if all

elements of a claim are disclosed in various prior art references, the claimed invention taken as a

whole cannot be said to be obvious without some reason given in the prior art why one of

ordinary skill would have been prompted to combine the teachings of the references to arrive at

the claimed invention.

The Federal Circuit has also repeatedly warned against using the applicant's disclosure as

a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. See,

e.g., Grain Processing Corp. v. American Maize-Products, 840 F.2d 902, 907, 5 USPQ2d

1788,1792 (Fed. Cir. 1988).

The following were cited by Judge Linn in In re Kotzab, 217 F.3d 1365, 55 USPQ2d

1313 (Fed. Cir. 2000):

a)   Hindsight Syndrome

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then accepted wisdom in the field. ... Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." (Id. at 1369, 55 USPQ2d at 1316).

b)   Need for Motivation

Most if not all inventions arise from a combination of old elements. ... Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. (Id. at 1369, 55 USPQ2d at 1316) (citations omitted).

c)   Particular Findings Required

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather dm expressly stated in the references. ... The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. ...

Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. Broad conclusory statements standing alone are not "evidence." (Id. at 1370, 55 USPQ2d 1317) (citations omitted).

Furthermore, if a prior art reference requires some modification in order to meet the claimed invention or requires some modification in order to be properly combined with another reference and such a modification destroys the purpose or function of the invention disclosed in the reference, one of ordinary skill in the art would not have found a reason to make the claimed modification. Thus, the CCPA had and the Federal Circuit has consistently held that when a §103 rejection is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference, such a proposed modification is not proper and the prima facie case of obviousness cannot be properly made.

The following is a summary of each of the cited prior art and an indication of the respective technical field.

Bakke teaches a redundancy manager in an I/O adapter that manages commands to peripheral devices in a computer system. These peripheral devices have multiple ports and may have a different bus associated with each port. The buses, referred to as independent pathways, moreover, need not have the same protocol. The redundancy manager determines the number of independent pathways connected to the peripheral device, presents only one logical device to the operating system and any device driver and any other command or device processing logic in the command path before the redundancy manager. For each incoming command, the redundancy manager determines which pathways are properly functioning and selects the best pathway for the command based on load balancing considerations and any ordering semantics that must be

preserved in the incoming command and any outstanding commands and associated data that have not yet executed. The redundancy manager further reroutes the command to an alternate path and resets the device for the alternate path if the selected path failed. Thus, a dynamic mechanism and method to manage multiple pathways to I/O devices such as storage disks do not require the intervention of either the operating system of the computer or any device driver associated with the device or the interconnecting bus. This invention relates generally to the field of computer processing and more specifically relates to managing multiple physical paths from a host computer system to peripheral devices.

Bakke is directed to the following problem. There is no mechanism for dynamic usage and load balancing amongst the redundant physical paths. Once a physical path has failed, moreover, the host operating system has no simple means to dynamically use alternate paths or to recover use of the failed path once it becomes available.

Kitchin discloses a way of managing bandwidth in a network supporting variable bit rate. An apparatus is provided that comprises an interface to transmit data to a receiving device. The apparatus comprises a controller that is communicatively coupled to the interface, the controller to detect a bit rate change event and transmit a first portion of the data using reserved bandwidth and a second portion of the data using unreserved bandwidth in response to detecting the bit rate change event.

Kitchin is directed to the following problem. [paragraph 0006] Typically, bandwidth agreements in WLANs that support dynamic bit rate connections are negotiated based on an assumed bit rate. If, however, the bit rate changes from the assumed bit rate, the existing bandwidth agreement may no longer be valid, thereby possibly interrupting the transfer of data.

This interruption in data transfer may be problematic for applications that, for example, transmit voice, audio, video, and/or other high priority traffic. [paragraph 0007] Thus, there is a need to efficiently manage bandwidth in a network supporting variable bit rate.

The Examiner rejected claims 13-14 and 16-20 under 35 U.S.C. 103(a) as being unpatentable over Benco et al (US Pub. No. 2005/0135393 Al) in view of Kitchin (U.S. Pub. No. 2002/0154656 Al). Although the Examiner has cited the Benco et al reference, the Examiner hereafter references Bakke (U.S. Patent No. 6,740,812 B2) in his discussion of the rejection of the claims. Therefore, Applicant assumes that the Examiner mistakenly referred to the Benco reference instead of to the Bakke reference.

Referring to claim 13, the Examiner held as follows. Bakke discloses a method for interfacing a data capable mobile phone to at least one peripheral device (figure 1, Col. 6, lines 20-55 and Col. 8, lines 19-35), comprising: providing a internal bus in the mobile phone (figures 1-2, Col. 6, lines 20-35, "internal bus 105"); providing a peripheral hub having an input that is an I/O port and at least one output that is an I/O port (figures 1-2, Col. 6, lines 60-67, "connected to a myriad of external or peripheral devices either through a connection hub 130"); operatively connecting the internal bus to the input of the peripheral hub (figures 1-2, col. 6, lines 60-67, "connected to a myriad of external or peripheral devices either through a connection hub 130"); providing an I/O interface device controller respectively for each I/O port in the peripheral hub (figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67, col. 9, lines 20-65, "device control logic 224, 234 to control and reset each device 230, 240, 250", "'connected to a myriad of external or peripheral devices either through a connection hub 130", "Operating system 122 provides ... device drivers for interfaces", note that the mobile device is connected to multiple peripheral

devices with device drivers through a multi I/O hub, hence it is inherent that an I/O interface

device controller is provided so that data is transmitted to the appropriate peripheral device and

data transmittal to multiple peripheral devices is controlled without losing or misdirecting data);

operatively connecting at least one peripheral device to the at least one output of the peripheral

hub figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67, col. 9, lines 20-65, "connected to a

myriad of external or peripheral devices either through a connection hub 130", "connect a wide

variety of devices to the host"); recognizing, by the peripheral hub, peripheral devices connected

lo the peripheral hub; separating peripheral interfaces from the internal bus of the mobile phone

and making respective peripheral interfaces available on respective peripheral device outputs of

the peripheral hub (figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67, col. 9, lines 20-65,

"device control logic 224, 234 to control and reset each device 230, 240, 250", "connected to a

myriad of external or peripheral devices either through a connection hub 130", "processor

complex 104 connected to a main memory 120 by an internal bus", "Operating system 122

provides... device drivers for interfaces", note that mobile device is connected to multiple I/O

peripheral devices and device drives are provided for each peripheral device by the OS, thus it is

inherent that the data interface with the multiple I/O devices are controlled so that appropriate

data communication is taken place and. Hence, recognizing by the peripheral hub is provided to

recognize connectivity to the peripheral hub, and separating peripheral interfaces from internal

bus and making respective peripheral interfaces available on respective peripheral device outputs

of the peripheral hub, so that communication takes place through/with the desired peripheral

devices); interworking with the internal bus of the mobile phone to exchange data and control

information with a CPU of the mobile phone (figure 1-2 and col. 6, lines 20-65); and directing

control and data from the internal bus of the mobile phone to a corresponding interface device controller for a respective peripheral device (figures 1-2, and col. 6, lines 19-67, col. 7, lines 13-67, Col. 9, lines 20-65, "device control logic 224, 234 to control and reset each device 230, 240, 250", "connected to a myriad of external or peripheral devices either through a connection hub 130", "Operating system 122 provides ... device drivers for interfaces", note that the mobile device is connected to multiple peripheral devices with device drivers through a multi I/O hub, hence it is inherent that an I/O interface device controller is provided for directing control and data from the internal bus of the mobile phone to a corresponding interface device controller for a respective peripheral device).

The Examiner admitted that Bakke does not specifically disclose storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub.

The Examiner then cited Kitchin as disclosing storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub (figure 2 and paragraphs 21-26, "device driver 296 installed on the wireless network hub 30", "device drivers 290... may be stored in the storage unit 270").

The Examiner then concluded that it would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Bakke by incorporating the teachings of Kitchin and consequently providing the method of Bakke with storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub, motivation being for the purpose of increasing memory space for the internal memory system of the mobile device since drivers are stored in the peripheral hub, providing a more robust interface hub, and/or providing a mobile hub that is easily moved and connected to other mobile phones.

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The Examiner rejected independent claim 17 on the same basis.

In arguing his support for the Bakke reference, the Examiner has had to rely on inherency
in three different areas. The three inherency references are as follows: "note that the mobile
device is connected to multiple peripheral devices with device drivers through a multi I/O hub,
hence it is inherent that an I/O interface device controller is provided so that data is transmitted to
the appropriate peripheral device and data transmittal to multiple peripheral devices is controlled
without losing or misdirecting data; "note that mobile device is connected to multiple I/O
peripheral devices and device drives are provided for each peripheral device by the OS, thus it is
inherent that the data interface with the multiple I/O devices are controlled so that appropriate
data communication is taken place"; and "note that the mobile device is connected to multiple
peripheral devices with device drivers through a multi I/O hub, hence it is inherent that an I/O
interface device controller is provided for directing control and data from the internal bus of the
mobile phone to a corresponding interface device controller for a respective peripheral device".

Such reliance on inherency only supports the position that Bakke is lacking in a sufficient
number of areas that one skilled in the art would not rely on the teachings of Bakke in an attempt
to arrive at the present claimed invention of the Applicant.

Furthermore, Kitchin does not disclose storing drivers in the peripheral hub and installing
the drivers for peripheral devices connected to the peripheral hub.

In paragraph 0023 Kitchin teaches: "The wireless client 35(1-m), in one embodiment,
includes a storage unit 250 coupled to the second bridge 230. A network protocol 255 and a
device driver 260 for the wireless network interface 240 may be installed on the wireless client

35(1-m), and may be stored in the storage unit 250." That is, the wireless client has a storage unit that stores the device driver for its wireless network interface.

In paragraph 0024 Kitchin teaches: "The wireless network hub 30, in one embodiment, includes a control unit 270 and a storage unit 275. The wireless network hub 30 may include a wireless network interface 280 having a transceiver 282 and an antenna 284. The wireless network hub 30 includes a network protocol 286 and device driver 290 for the wireless network interface 280, in one embodiment." That is, the wireless network hub has a storage unit that stores the device driver for its wireless network interface.

In paragraph 0025 Kitchin teaches: "The wireless network hub 30, in one embodiment, includes a network interface 292 for interfacing with the network 15. The network interface 292 may have an associated protocol 294 and a device driver 296 installed on the wireless network hub 30."

In paragraph 0026 Kitchin teaches: "One or more of the network protocols 286, 294, device drivers 290, 296, and the bandwidth manager 40 of the wireless network hub 30 may be stored in the storage unit 275 and, in one embodiment, executable on the control unit 270." Although Kitchin teaches that one or more of the device drivers 290, 296 may be stored in the storage unit 275, Kitchin does not teach or suggest that the device driver 260 for the wireless client (peripheral device) be stored in the storage unit 270. The device driver 260 is stored in the storage unit 250 of the wireless client 35. Thus, Kitchin does not teach or suggest storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub.

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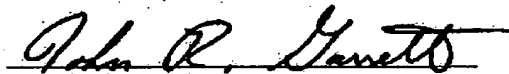CENTRAL FAX CENTER

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Thus, the independent claims 13 and 17 are not anticipated by nor obvious in view of any of the cited prior art taken singly or in combination.

The dependent claims include all the limitations of the independent claims upon which they depend, and therefore for the reasons set forth above with regards to the independent claims, these dependent claims are deemed to be allowable over any combination of the cited prior art.

Reconsideration and withdrawal of the rejections is therefore respectfully requested. In view of the above remarks, allowance of all claims pending is respectfully requested.

The prior art made of record and not relied upon is considered to be of general interest only. This application is believed to be in condition for allowance, and such action at an early date is earnestly solicited. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicant's attorney.

Respectfully submitted,

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